



**STATE OF MONTANA
MONTANA DEPARTMENT OF TRANSPORTATION
JOB PROFILE**



Update



Formal Review

Date Submitted _____

SECTION I - Identification

Working Title: Design Supervisor

Department: Transportation

Job Code Number: 005676

**Division & Bureau: Engineering, Traffic
and Safety**

Job Code Title: Designer

**Section & Unit: Traffic Design
Section, Signing Unit**

Pay Band: 6

**Work Address: 2701 Prospect Avenue
Helena, Montana 59620-1001**

Position Number: 36044

Phone: 406-444-0463



FLSA Exempt



FLSA Non-Exempt



Non-Union



MPEA



Blue Collar

Profile Completed By: LeRoy Wosoba

Work Phone: 406-444-1280

Work Unit Mission Statement or Functional Description:

The Traffic and Safety Bureau is responsible for all aspects of the development and design of highway safety and traffic engineering functions. It includes the Traffic Design, Traffic Operations, and Safety Engineering Sections.

The Traffic Design Section is responsible for the design of roadway geometry, signing and pavement markings, illumination, signalization, highway safety improvements, and pedestrian and school crossings associated with federal and state-funded highway projects. It includes Geometrics, Signing, Safety, and Electrical Units.

The Signing Unit is responsible for the development and review of plans and specifications for all signing and pavement marking design elements on all federal-aid highways for inclusion into the Road Design, District Design, Traffic and Safety, and Consultant Design plans. This is done by gathering preliminary design data, synthesizing this information by interpreting and applying appropriate State

and Federal policies and engineering practices, procedures, and warrants; thereby generating a clear and concise set of details for inclusion into the project plans.

The Signing Unit responds to external requests for new signing and pavement markings by individuals, groups and other agencies. The Signing Unit provides the engineering design and technical expertise on geometric elements by application of established policies, engineering practices, and current research to meet the traffic operation, environmental and roadway conditions specific to the site of concern.

Describe the Job's Overall Purpose:

This position performs supervisory and engineering design work in the planning and traffic engineering design of roads and related facilities for a large number of projects of varying complexity on Montana's interstate, primary, secondary and urban highway systems. The incumbent is responsible for 1) the organization and oversight of project design development, 2) the supervision, training, and development of a staff of designers and technicians, and 3) providing technical expertise and guidance to the districts and other agencies, as well as the general public. The position reports to the Traffic Project Engineer.

<i>SECTION II - Major Duties or Responsibilities</i>	<i>% of Time</i>
A. Traffic Design	35%
1. Requests, compiles and interprets project documentation; including the Preliminary Field Review Report, Scope of Work Report, environmental documents, traffic data, etc. to assemble a working design plan. A working design plan is all pertinent data, goals and objectives relating to a specific project's design. Regarding a subordinate's project, this position must maintain a working knowledge of the project in order to provide guidance during project development.	
2. Using engineering theories, principals, practices and constructability concerns, determines the most cost effective design for projects involving unusual terrain, or environmental issues.	
3. Coordinates the design activities and services with other bureaus and sections to ensure that appropriate materials, right-of-way, hydraulic, structure, utility and other features are incorporated into the design.	
4. Solves technical problems by compiling analytical reports covering all aspects of the problem. Using engineering theories, principals, practices and constructability concerns recommends a corrective course of action. Disseminates and discusses findings with other MDT staff to initiate corrections, deliberate alternatives, and implement solutions.	
5. Provides project related guidance and technical expertise to other departmental agencies regarding issues such as design, upgraded safety features, use of specialized materials and equipment and design alternatives and solutions. Provides recommendations for design standards, standard drawings and design procedures.	
6. Participates in reviews and project plan-in-hand inspections with MDT personnel, consultants and other agencies to reconcile different views, conflicting data and obtain agreement or acceptance of design solutions to particular problems encountered. Provides technical expertise at meetings by answering specific questions dealing with traffic design details. Incorporates decisions made into final plans package.	

7. Reviews construction plans and contracts to ensure the adequacy and feasibility of signing plans based on site-specific conditions. This involves engineering assessment of the design through both office and field reviews to coordinate and balance constructability and compliance with current federal and state design standards, and that other project requirements are adequately considered in the project plan.
8. Assigns and oversees the calculation of sign designs and pavement marking quantities, overhead cantilever sign structures, and other miscellaneous features necessary for a complete project. Checks plan, detail and summary sheets. Writes and/or checks special provisions and other contract considerations. Prepares and/or checks project cost estimates.
9. Makes recommendations for the development of new methods and techniques. This involves evaluating emerging technology and professional practices; identifying field objectives; coordinating the development of new applications and revisions to existing systems with MDT ISB professionals, and providing training and technical assistance to staff.

B. Design Project Administration

30%

1. This position is the Functional Manager for the Signing Unit. Reviews survey and Preliminary Field Review Report and determines the input needs for project development. Monitors project development in accordance with the OPX-2 project scheduling system. Submits input and status updates to the OPX-2 system concerning project activity scheduling.
2. Participates in design coordination with preconstruction and district personnel to establish and set standards and guidelines for the design of projects and to insure project designs are delivered on schedule.
3. Makes initial project design determinations based on traffic operational needs, safety and constructability through both office and field reviews. The incumbent evaluates the need for applying unique design or construction methods for projects in which no precedent has been determined, and proposes alternative designs or methods to the supervising engineer.
4. For signing designs submitted by consultants verifies the compatibility of all electronic files submitted and uploads the files to the Document Management System. Provides comments and recommendations to the Consultant Project Manager when files aren't compatible.
5. Evaluates the need for additional resources by tracking staff workloads and availability as well as project delivery deadlines in order to make recommendations for additional resources such as traffic term assignments.

C. Staff Supervision

25%

1. This position supervises 3 FTE's and assigns work by assessing the experience and capabilities of staff and also their current project workload. Instructs staff in prescribed methods and work techniques, demonstrates proper work methods, and insures availability of necessary materials and equipment.
2. Direct supervision over staff on a daily basis by: assigning work based on duties and responsibilities, implementing work plans, methods and procedures and monitoring work flow, coordinating with the Traffic Project Engineer on status and performance issues, evaluating work habits and recommending disciplinary action, recommending formal training and providing on-the-job training.

3. Sets performance standards and evaluates performance of staff in order to communicate and recognize the work is performed correctly in accordance with plan targets and performance appraisal procedures and policies. Evaluates the performance of all positions directly supervised and completes performance evaluations. Implements and monitors corrective actions. Enforces discipline policies to ensure consistency in application of disciplinary action.
4. Develops staff skills by assigning work that expands versatility among personnel in the unit. Trains and orients new employees. Determines training needs of design staff and makes recommendations. Ensures consistency in the application of training opportunities for all staff.
5. Serves as selection committee member to recruit, test, interview, determine results and make hiring and promotion recommendations. Develops standards and promotes staff through the career ladder.
6. Conducts staff meetings, disseminates complex data, and promotes information exchange for support and advancement of MDT goals.
7. Approves staff payroll time document for correctness of hours worked and project charges; other compensation such as per diem, leave taken (sick or annual); determines initial eligibility for Family Medical Leave Act.

D. Unit Administration

10%

1. Ensures the proper storage and disposition of all records and correspondence pertaining to design activities by providing direction and guidance to subordinates on records management, electronic data storage, and record transfer and archiving activities and policies.
2. Develops solutions and recommends improvements to design standards and standard drawings for use by Engineering, Consultants and Contractors.
3. Conducts and/or works on committees and special assignments for improving the operations of the department and implementing new methods and techniques.
4. Attends, researches requests, gives input, and participates in the Designer Career Ladder Committee meetings.
5. Assists the public by providing information and answering design-related questions on projects.
6. Performs a variety of other duties as assigned by the Traffic Project Engineer in support of the Department mission and Division objectives.

The following duties and/or specific tasks listed under section II above are considered "essential functions" because they require specialized expertise and skill and are the primary reasons the job exists (they must be performed by this position with or without accommodations):

Traffic Design, Design Project Administration

The following mental and physical demands are associated with these essential functions:

PHYSICAL

- Extended hours of desk work
- Repetitive motion
- Prolonged sitting
- Traverse steep grades and rough terrain when participating in field reviews.
- See work being completed on designers' monitor during design phase of projects.
- Verbal communication, writing, email, and phone.
- Long travel distances and doing field inspections over a several day period.

MENTAL

- Comparing data
- Compiling information, Analyzing, Coordinating, Synthesizing, Negotiating, Instructing
- Ability to multi-task
- Ability to meet inflexible deadlines
- Decision-making that affects the public health and safety
- Interpersonal skills/behaviors
- Demands for accuracy in all aspects of work
- Must be able to deal with diverse groups under possibly stressful conditions.
- Must be capable of operating and training Designers in the use of the Department's computer software.

Does this position supervise others? ☒ **Yes** ☐ **No**

Number directly supervised: 3
Position Number(s) of those supervised:
36030, 36021, 36005

Attach an Organizational Chart.

SECTION III - Minimum Qualifications - List minimum requirements for the first day of work.

Critical knowledge and skills required for this position:

KNOWLEDGE: Requires technical expert level knowledge of the Manual on Uniform Traffic Control Devices, AASHTO standards and guides, Traffic Manual, Standard Specifications for Road and Bridge Construction, Road Design Manual, Montana Code Annotated, departmental policies and other technical documents for signing and pavement marking standards and procedures. Extensive knowledge of the principles, practices and specifications of traffic engineering, roadway design, utility conflicts, and structural design.

Knowledge of supervisory principles and practice is required. This includes knowledge of MDT and State personnel procedures and policies, organizational theory, employment law, program requirement, public administration, collective bargaining agreements, labor relations, and personnel management practices and techniques.

SKILLS: Demonstrated advanced skills in the use of computer aided drafting and design (CADD) software. Training and technical assistance duties require knowledge of classroom and on-the-job training methods and techniques; state and federal standards; and technical writing principles. Skill in the use of programmable calculator, personal computer, and computer applications including PC, Microsoft Word, Windows, CADD Access Server, Document Management System, MicroStation and Microsoft Excel.

Behaviors required to perform these duties:

See MDT Core Behaviors

Education:

Check the one box indicating minimum education requirements for this position for a new employee the first day of work:

- | | |
|---|--|
| <input type="checkbox"/> No education required | <input type="checkbox"/> Related AAS/2-years college/vocational training |
| <input type="checkbox"/> High school diploma or equivalent | <input checked="" type="checkbox"/> Related Bachelor's Degree |
| <input type="checkbox"/> 1-year related college/voc. training | <input type="checkbox"/> Related Master's degree |

Please specify the acceptable fields of study: A Bachelor's Degree in Civil Engineering, Construction Engineering, or a closely related field.

Experience:

Check the one box indicating minimum work-related experience requirements for this position for a new employee the first day of work:

- | | |
|---|---|
| <input type="checkbox"/> No prior experience required | <input type="checkbox"/> 3 years |
| <input type="checkbox"/> 1 year | <input checked="" type="checkbox"/> 4 years |
| <input type="checkbox"/> 2 years | <input type="checkbox"/> 5 or more years |

Other specific experience (optional): 4 years of progressively responsible highway design experience.

Alternative Qualifications:

This agency will accept alternative methods of obtaining necessary qualifications.

☒ Yes ☐ No

Alternative qualifications include:

Equivalent combinations of education and experience will be considered on a case by case basis.

SECTION IV – Other Important Job Information

- | | |
|--|--|
| <input type="checkbox"/> Fingerprint check | <input checked="" type="checkbox"/> Valid driver's license |
| <input type="checkbox"/> Background check | <input type="checkbox"/> Other; Describe |

SECTION V – Signatures

Signature indicates this statement is accurate and complete.

Employee:

Name: _____ Title: _____

Signature: _____ Date: _____

Immediate Supervisor:

Name: _____ Title: _____

Signature: _____ Date: _____

Bureau Chief:

Name: _____ Title: _____

Signature: _____ Date: _____

Division/District Administrator:

Name: _____ Title: _____

Signature: _____ Date: _____

Department Designee:

Brent Rabe/Designee

Human Resources Administrator
Human Resources Division

Signature: _____ Date: _____